

<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number (Optional)
<i>via EFS</i>		4366-106
<p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]</p> <p>on <u>January 18, 2008</u></p> <p>Signature <u>Leslie M. Frankel</u></p>		
<p>Typed or printed name <u>Leslie M. Frankel</u></p>		
Application Number	Filed	
10/673,118	September 26, 2003	
First Named Inventor		
Andrew D. Flockhart		
Art Unit	Examiner	
3676	Wai, Eric Charles	

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

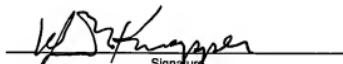
I am the

applicant/inventor.

assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/88)

attorney or agent of record. Registration number 44,189

attorney or agent acting under 37 CFR 1.34.  
Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

  
Signature  
**Bradley M. Knepper**

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Typed or printed name  
**303-863-9700**

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Telephone number  
**2008-01-18**

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Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.  
Submit multiple forms if more than one signature is required, see below\*.

\*Total of \_\_\_\_\_ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re the Application of: ) Group Art Unit: 3676  
FLOCKHART et al. )  
Serial No.: 10/673,118 ) Examiner: WAI, ERIC CHARLES  
Filed: September 26, 2003 )  
Atty. File No.: 4366-106 ) Confirmation No.: 9237  
)  
For:  
"METHOD AND APPARATUS FOR LOAD  
BALANCING WORK ON A NETWORK OF  
SERVERS BASED ON THE PROBABILITY  
OF BEING SERVICED WITHIN A SERVICE  
TIME GOAL"

REASONS SUPPORTING PRE-APPEAL  
BRIEF REQUEST FOR REVIEW

CERTIFICATE OF EFS-WEB FILING

I HEREBY CERTIFY THAT THIS CORRESPONDENCE  
IS BEING TRANSMITTED VIA THE OFFICE  
ELECTRONIC FILING SYSTEM IN ACCORDANCE  
WITH 37 CFR §1.6(a)(4) ON January 18, 2008

BY: Sheridan Ross P.C.  
Yerum Frankel

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313

Dear Sir:

The following sets forth applicants' Reasons in Support of the Pre-Appeal Brief Request for Review submitted herewith.

The Examiner's objections omit essential elements needed to reject the pending claims. In particular, the cited references do not teach, suggest or describe a system or method in which a probability of servicing a work request within a target time is calculated for each of a plurality of service locations by calculating a number of opportunities to service the work request within the target time by each service location included in the plurality of service locations as generally claimed. Accordingly, it is submitted that all the claims are in condition for allowance.

The Examiner rejects Claims 1-3, 6-7, 13-14, 16-18, 20-26 and 28 as being anticipated under 35 U.S.C. § 102 by U.S. Patent No. 6,487,290 to Le Grand. In addition, Claims 8-12, 19 and 29-34 stand rejected under 35 U.S.C. § 103 as being unpatentable over Le Grand in view of U.S. Patent No. 5,506,898 to Costantini, et al. ("Costantini"). In order for a rejection under 35 U.S.C. § 102 to be proper, each and every element as set forth in a claim must be found, either

expressly or inherently described, in a single prior art reference. (MPEP § 2131.) In order to establish a *prima facie* case of obviousness under § 103, there must be some suggestion or motivation to modify the reference or to combine the reference teachings, there must be a reasonable expectation of success, and the prior art reference or references must teach of suggest all the claim limitations (MPEP § 2143.) However, all of the claim elements cannot be found in the cited references, whether those references are considered alone or in combination.

Accordingly, reconsideration and withdrawal of the rejections of the claims as anticipated by or obvious in view of the cited references are respectfully requested.

The claimed invention is generally directed to a method and system that balances resource loads for a plurality of service locations. More particularly, the claims recite the computation of a relative probability of servicing work requests for each service location included in a plurality of service locations. Work requests are then assigned to a service location based on the determined relative probabilities, allowing work to be efficiently routed. Moreover, the pending claims generally require determining a relative probability by calculating a number of opportunities to service the work request within a target time by each service location included in the plurality of service locations. There is no disclosure in any of the cited references of determining a number of opportunities to service a work request within a target time as claimed.

The Advisory Action dated January 10, 2008, contends that the “number of opportunities” recited by the claims is not explicitly defined. As an initial matter, applicants note that an explicit definition is not required, and that the term, considered in the context of the described and claimed invention, is clear. Should there be any question, applicants note that the specification describes determining a probability that a service location will be able to service work within a target time relative to other service locations, and as part of that description provides an illustration of how the claimed number of opportunities can be calculated. The explanation includes particular algorithms that can be applied, and applicants note that such algorithms are set forth in dependent claims that have been indicated as allowable. However, such detailed algorithms do not need to be incorporated into the independent claims in order to overcome the cited references. Moreover, from the original specification, it is apparent to one of ordinary skill in the art that a number of opportunities to service work within a specified target time is simply that.

In addition, the Advisory Action argues that a shorter queue length is indicative of a greater number of opportunities. However, recognition that for a given target time and advance time there will be a greater number of opportunities to service work when a queue is shorter rather than longer does not make up for the failure of Le Grand to provide any teaching, suggestion or description of calculating a number of opportunities. Accordingly, the metric provided by the claimed number of opportunities is completely absent from Le Grand (and from Costantini).

The Le Grand reference is generally directed to call routing based on local status evaluation, and discusses determining a queue wait time for a single response resource capable of responding to a call. (Le Grand, column 2, ll. 11-14.) Le Grand also mentions the possibility of utilizing figure of merit values that are representative of the probability of delay in servicing a call if the call were routed to a particular agent or queue. (Le Grand, column 4, ll. 22-25.) Le Grand explains that a figure of merit value indicative of a low probability of delay for routing to a particular queue would be basically analogous to a figure of merit value indicative of a short present queue wait. (Le Grand, column 4, ll. 25-29.) However, Le Grand does not teach, suggest or describe determining a probability that a service location will be able to service a work request within a target time by calculating a number of opportunities to service the work request within that target time. Indeed, there is no disclosure in Le Grand of the method by which the probability is calculated. Moreover, it is apparent from Le Grand's characterization of a Figure of merit value indicative of a low probability of delay as being "basically analogous to a . . . short present wait time" that there is in fact no relation between the probability of delay in Le Grand and a specified target time. Accordingly, reliance on Le Grand for purportedly disclosing these aspects of the claims is improper.

The only support in the detailed action that can be found for the position taken by the Office Action that the claimed number of opportunities is disclosed by Le Grand is the statement that "the shortest queue length is indicative of a number of opportunities" (Office Action of October 26, 2007, page 3, l. 15) with a cite to column 5, ll. 17-23 of Le Grand. However, that portion of Le Grand says nothing about a number of opportunities. Instead, it states that a poll response from a response location will typically represent the queue delay for the qualified agent at that location who currently has the shortest individual queue, and therefore the figure of merit

poll response will be representative only of the qualified agent with the shortest queue. (Le Grand, column 5, ll. 17-23.) In addition, this statement that the shortest queue length (and nothing more) is indicative of a number of opportunities is factually incorrect.

There is no teaching in Le Grand that a short queue length is indicative of a number of opportunities, and Le Grand contains no description of calculating a relative probability by calculating a number of opportunities to service a work request. Indeed, there is absolutely no mention of number of opportunities or an equivalent in Le Grand. Also, applying the reasoning of the Office Action to Le Grand, it would appear that Le Grand would have to first determine a probability, and then a number of opportunities. This is of course contrary to the pending Claims, which require that the probability be determined from a number of opportunities. In addition, the fact remains that Le Grand does not disclose calculating a number of opportunities. Therefore, the rejections of Claims 1-3, 6-7, 13-14, 16-18, 23, 26 and 28 as being anticipated by Le Grand is improper, and should be reconsidered and withdrawn.

The Costantini reference is cited in the Office Action for using an average rate of advance in determining the estimated wait time in a queue. Although Costantini does discuss determining a wait time for an item in a particular queue, there is no disclosure of a target time or a relative probability for a service location that is determined by calculating a number of opportunities to service a work request within a target time at a service location in the Costantini reference. In particular, combining the queue wait time of Le Grand with the weighted advance time of Costantini does not result in a teaching of the claimed calculation of a number of opportunities to service a work request within a target time. Accordingly, even if the Costantini reference were combined with Le Grand, each and every element of the pending claims is not taught, suggested or described by the prior art. Therefore, the rejections of Claims 8-12, 19 and 29-34 as obvious should be reconsidered and withdrawn.

Claims 16-19 and 20-25 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In particular, the Office Action states that Claims 16 and 20 recite an apparatus, however, the Office Action finds that the system would reasonably be interpreted by one of ordinary skill in the art as software per se. Applicants note that Claim 16 is in means function form, which requires that the recited “means for” be modified by functional language (MPEP §2818). Moreover, the structure associated with various of the recited means includes

hardware components. In addition, in interpreting a means plus function claim, “the PTO may not disregard the structure disclosed in the specification corresponding to such [means plus function] language when rendering a patentability determination.” (MPEP §2181, quoting *In re Donaldson Co.*, 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994)). Accordingly, the rejection under 35 U.S.C. § 101 of Claims 16-19 should be reconsidered and withdrawn.

Claim 20 recites various hardware components, including a controller that operates to perform various functions. As is known by those of ordinary skill in the art, a controller is a hardware component that can (but need not) execute software instructions. Moreover, the assertion in the Office Action that Applicants’ invention is software *per se* is simply incorrect. For these reasons, the rejections of Claims 20-25 as being directed to non-statutory subject matter should also be reconsidered and withdrawn.

Because the references cited by the Examiner do not teach, suggest or describe a system or method in which a number of opportunities to service a work request within a target time is calculated as claimed, essential elements required for a rejection of the claims have been omitted by the Office Action. Therefore, the rejections of the claims in view of the cited references should be reconsidered and withdrawn, and the claims allowed.

The pre-appeal brief conference participants are invited to contact the undersigned by telephone if there are any questions or if doing so would expedite the resolution of this matter.

Respectfully submitted,

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